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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,964	11/24/2003	Roger S. Kerr	82473ANAB	5210

7590

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EXAMINER
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MAZUMDAR, SONYA

ART UNIT	PAPER NUMBER
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1734

DATE MAILED: 12/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/720,964	KERR ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Sonya Mazumdar	1734	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10 and 11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10 and 11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites the limitation "the coated sheet of plastic material" in the 8<sup>th</sup> line of the claim. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. Claims 1 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nordeen et al. (US 6022440) in view of Thomas et al. (US 4456570)

With respect to claim 1, Nordeen et al. discloses a method for laminating a pre-press proof comprising thermoplastic layer and a support layer to a plastic ink receptive layer; laminating a pre-laminate sheet of material consisting of a thermoplastic layer and a support layer to the ink receptive layer; removing the first support layer forming a pre-laminated receiver stock of the remaining thermoplastic layer and the ink receptive layer; creating an imaged receiver sheet comprising an image with a second thermoplastic layer and a second support layer; laminating the imaged receiver sheet with a pre-laminated receiver stock; and removing the second support layer thus forming a final pre-press proof with the image in between the first and second thermoplastic layers (column 3, lines 3-4 and lines 35-41; column 6, lines 41-43 and 60-63; column 7, lines 7-9 and 13-19 and 28-32; column 10, lines 31-58).

However, Nordeen et al. does not disclose plasma etching the plastic ink-receptive layer. Thomas et al. teaches plasma etching the bonding surface of a polymeric sheet in laminating processes (column 1, lines 28-35).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method of Nordeen et al. to include plasma etching the sheet of plastic material. One would have been motivated to do so to increase the receptivity to ink, paints, or other surfaces resulting in a well-bonded laminate.

With respect to claim 10, Nordeen et al. discloses a method where the image is an inkjet-generated image (column 3, lines 1-2).

5. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nordeen et al. (US 6,022,44) and Thomas et al. (US 4,456,570) as applied to claim 1 above, and further in view of Sasaki (US 4,786,537).

The teachings of claim 1 are as described above. However, with respect to claims 2 and 3, the references as combined (see Nordeen et al.) disclose a method wherein the removable first and second support layers are coated paper substrates (column 3, lines 25-26), but the references as combined do not teach a method wherein the first and second support layers are comprised of a support base and a release layer. Sasaki teaches providing a support layer with a structure comprised of a support base and a release layer, i.e. a paper support base having a silicone release layer (column 2, lines 60-63).

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the coated paper disclosed by the references as combined with a structure comprised of a support base, i.e. a paper substrate, and a release layer, i.e. a silicone layer. One would have been motivated to do so as a means of applying adhesive to an article prior further transfer.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nordeen et al. (US 6,022,440) and Thomas et al. (US 4,456,570) as applied to claim 1 above, and further in view of Sasaki (US 4,786,537) and Kolobow (US 4,093,515).

The teachings of claim 1 are as described above. However, with respect to claim 4, the references as combined disclose a method wherein the removable support layer is a coated paper substrate (Nordeen et al. - column 3, lines 25-26), but the references

Art Unit: 1734

as combined do not teach a method wherein the support layer is comprised of a support base and a release layer.

Sasaki teaches providing a support layer with a structure comprised of a support base and a release layer, i.e. a paper support base having a silicone release layer (column 2, lines 60-63).

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the coated paper disclosed by the references as combined with a structure comprised of a support base, i.e. a paper substrate, and a release layer, i.e. a silicone layer. One would have been motivated to do so as a means of applying adhesive to an article prior further transfer.

Also, with respect to claim 4, the references as combined do not disclose a method wherein the support layer includes an aluminized layer. It is well known and conventional in the laminating art, as disclosed by Kolobow (column 5, lines 27-34), to provide a removable support layer with an aluminized layer to promote the releasability of the support layer. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the support layer of the references as combined to include an aluminized layer as suggested by Kolobow and one would have been motivated to do so to promote the releasability of the support layer.

7. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nordeen et al. (US 6,022,440) and Thomas et al. (US 4,456,570) as applied to claim 1 above, and further in view of Pilu (US 6,460,993).

The teachings of claim 1 are as described above. However, with respect to claims 5 and 6, the references as combined does not disclose a pre-press proof with a resolution of between 1000 dpi and 4000 dpi or a resolution of between 1800 dpi and 3000 dpi. Piliu discloses that it is not uncommon for individual users to possess ink jet printers which have a resolution of perhaps up to 2400 dpi and that high resolution printing results in printed items which are more convincing (column 3, lines 44-51).

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the pre-press proof with a resolution of between 1800 dpi and 3000 dpi. One would have been motivated to do so to yield a convincing image with excellent clarity.

8. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nordeen et al. (US 6,022,440) and Thomas et al. (US 4,456,570) as applied to claim 1 above, and further in view of Yamaguchi (US 6,435,640).

The teachings of claim 1 are as described above. However, with respect to claims 7 and 8, the references as combined disclose providing the imaged receiver sheet with an inkjet-generated image (Nordeen et al. - column 3, lines 1-2), but the references as combined are silent as to the imaged receiver sheet comprising either a monochrome or a multi-colored image. Yamaguchi discloses providing inkjet generated images in either monochrome or multicolor to create customized images (column 3, lines 40-42).

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the inkjet-generated image as either a monochrome or multi-

colored image. One would have been motivated to do so because the use of inkjet printing providing both monochrome and multi-colored images allows for an image with desired aesthetic appearance.

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nordeen et al. (US 6,022,440) and Thomas et al. (US 4,456,570) as applied to claim 1 above, and further in view of Johnson et al. (US 6,593,390).

The teachings of claim 1 are as described above. However, with respect to claim 11, the references as combined do not disclose a method wherein the plasma etching takes place in a printing press. Johnson et al. teaches pre-treating the printing surfaces of substrates with plasma etching prior to carrying out the printing process (column 8, lines 40-47).

It would have been obvious to one of ordinary skill in the art to provide the plasma etching of the sheet of plastic material in the inkjet printing device prior to the printing of the sheet of plastic material. One would have been motivated to do so since plasma etching is often performed in close coordination with a printing process and promotes greater adhesion of the ink onto the surface of the substrate.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sonya Mazumdar whose telephone number is (571) 272-6019. The examiner can normally be reached on 8AM-4:30PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Fiorilla can be reached on (571) 272-1187. The fax phone




Art Unit: 1734

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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